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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER	
ROSARIO, DENNIS	

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/800,638	ATKINS ET AL.	
	Examiner	Art Unit	
	Dennis Rosario	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17 and 19* is/are rejected.

7)☒ Claim(s) *18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment was received on October 18, 2005. Claims 1-19 are pending.

Specification

2. Due to the amendment, the objections to the specification are withdrawn.

Claim Rejections - 35 USC § 112

3. Due to the amendment, the rejection of claims 1-19 under 35 U.S.C. 112 is withdrawn.

Response to Arguments

4. Applicant's arguments filed 10/18/2005 on page 14, lines 1-4 have been fully considered but they are not persuasive and states in pertinent part:

Applicant's respectfully assert that Bala does not teach... "generating a filter identifier based on one of an edge parameter computed based on the input pixel window and an activity metric not indicating an edge parameter computed based on the input pixel window" as claimed...

However, the examiner respectfully disagrees since Bala does teach:

a) generating a filter identifier (Fig. 6, num. 302: FILTER SELECTOR receives a "neigh-borhood" in col. 7, lines 41,42 input window or "footprint" in col. 7, line 31, which corresponds to fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s, and is responsive to the footprint for generating a filter identifier or "activity metric" in col. 7, line 61 "to select [a] filter" in col. 7, lines 62,63.) based on one of an edge parameter ("High activity [strong edges]" in col. 7, line 34) computed ("High activity [strong edges]" in col. 7, line 34 is computed using the equations of column 7.) based on the input pixel window ("footprint" in col. 7, line 15 is not changed in the context of the respective paragraph using the method of figure 10.) and

b) an activity metric not indicating an edge parameter computed ("Very low activity" in col. 7, line 30 is computed using the equations of column 7.) based on the input pixel window (Note in another interpretation that the same input pixel window is in common with all three filters of fig. 304,310 and 312 for either the edge parameter or the activity metric since a footprint size of 5 X 5 is in common to all three filters for the respective edge parameter and activity metric . as mentioned in col. 7, lines 30-36.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-17,19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Balasubramanian et al. (US Patent 6,646,762 B1).

Regarding claim 1, Balasubramanian et al. ("Bala"), discloses an image processing system comprising:

a) a filter selection mechanism (Fig. 6, num. 302: FILTER SELECTOR) for receiving an input pixel window (Fig. 6, num. 302: FILTER SELECTOR receives a "neigh-borhood" in col. 7, lines 41,42 input window or "footprint" in col. 7, line 31 which corresponds to fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s.) and

responsive thereto (Fig. 6, num. 302: FILTER SELECTOR receives a "neigh-borhood" in col. 7, lines 41,42 input window or " footprint" in col. 7, line 31, which corresponds to fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s, and is responsive to the footprint.)...

...for generating a filter identifier (Fig. 6, num. 302: FILTER SELECTOR receives a "neigh-borhood" in col. 7, lines 41,42 input window or "footprint" in col. 7, line 31, which corresponds to fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s, and is responsive to the footprint for generating a filter identifier or "activity metric" in col. 7, line 61 "to select [a] filter" in col. 7, lines 62,63.) based on one of an edge parameter ("High activity [strong edges]" in col. 7, line 34) computed ("High activity [strong edges]" in col. 7, line 34 is computed using the equations of column 7.) based on the input pixel window ("High activity [strong edges]" in col. 7, line 34 is computed using the equations of column 7 based on the input pixel window or "footprint" of col. 7, line 31, which corresponds to fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s.) and

b) an activity metric not indicating an edge parameter computed ("Very low activity" in col. 7, line 30 is computed using the equations of column 7.) based on the input pixel window ("Very low activity" in col. 7, line 30 is computed using the equations of column 7 based on the input pixel window or "footprint" of col. 7, line 31.) wherein a combination (as shown in a "ratio" in col. 8, line 5, "a_L/a_s" in fig. 10, num. 308 is a combination of "activity metrics" in col. 8, line 6.) of both the edge parameter ("High activity [strong edges]" in col. 7, line 34 would correspond to one activity metric of the ratio.) and the activity metric ("Very low activity" in col. 7, line 30 would correspond to the other activity metric of the ratio.) is not required (The combination as shown in a "ratio" in col. 8, line 5, "a_L/a_s" in fig. 10, num. 308 is a combination of "activity metrics" in col. 8, line 6 is not required as shown in fig. 10, num. 302 where one activity metric, a_s, is used to select the filter of fig. 10,num. 304: USE SMALL FILTER which corresponds to either a "small filter" in col. 7, line 30 of the "Very low activity" in col. 7, line 30 or "small filter" in col. 7, line 34 of the "High activity" in col. 7, line 34.)...

...for the generating of the filter identifier (The combination as shown in a "ratio" in col. 8, line 5, "a_L/a_s" in fig. 10, num. 308 is a combination of "activity metrics" in col. 8, line 6 is not required as shown in fig. 10, num. 302 where one activity metric, a_s, is used to select the filter of fig. 10,num. 304: USE SMALL FILTER which corresponds to either a "small filter" in col. 7, line 30 of the "Very low activity" in col. 7, line 30 or "small filter" in col. 7, line 34 of the "High activity" in col. 7, line 34 for generating a filter identifier or "activity metric" in col. 7, line 61, or "a_s", as shown in fig. 10, num. 302, "to select [a small area] filter" in col. 7, lines 62,63 as shown by the decision process of fig. 10, num. 302.); and

c) a filter application unit (Fig. 6,num. 104: SPATIAL FILTER F) coupled to the filter selection mechanism (Fig. 6, num. 302: FILTER SELECTOER) for receiving the filter identifier (output arrow of fig. 6,num. 302) and applying a filter (fig. 6,num. 104: SPATIAL FILTER F represents a filter that is applied.) identified by the filter identifier (output arrow of fig. 6,num. 302) to the input pixel window ("neigh-borhood" in col. 7, lines 41,42 input window or "footprint" in col. 7, line 31 or "block of values ΔY" in col. 5, line 44 and shown in fig. 6 being inputted into the filter of fig. 6,num. 104: SPATIAL FILTER F) to generate an output pixel (Output arrow of fig. 6,num. 104 represents an output pixel, ΔY'.).

Regarding claim 2, Bala disclose the image processing system of claim 1 further comprising:

a) an edge parameter evaluation unit (Fig. 6, num. 400: ACTIVITY METRIC is an edge parameter evaluation unit.) for computing at least one edge parameter based on the input pixel window (Fig. 6, num. 400: ACTIVITY METRIC is an edge parameter evaluation unit for computing at least one edge parameter or "High activity [strong edges]" in col. 7, line 34 using the equations of column 7 based on the input pixel window or "footprint" of col. 7, line 31.).

Regarding claim 3, Bala discloses the image processing system of claim 2 wherein the edge parameter (or "High activity [strong edges]" in col. 7, line 34) is one of an edge angle, an edge sharpness, an edge curvature, and any measurable unit (">1" in col. 7, line 35 is a measurable unit to determine strong edges.) related to an edge.

Claim 4 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 4.

Regarding claim 5, Bala discloses the image processing system of claim 4 wherein the activity metric ("Very low activity" in col. 7, line 30) is selected from a group (from a group of "L*,a*,b*" or "(L,C1,C2)" space in col. 4, lines 27-31) consisting of:

a level of variation of a red color plane, a level of variation of a green color plane, a level of variation of a blue color plane, a level of variation of a luminance plane (As shown in fig. 6, num. 102 outputs a variation or luminance difference, ΔY.), a mean absolute deviation of a red color plane, a mean absolute deviation of a green color plane, a mean absolute deviation of a blue color plane, and a mean absolute deviation of a luminance plane.

Regarding claim 6, Bala discloses the image processing system of claim 1 wherein the filter application unit includes a filter repository (or "a number of pre-selected filters" in col. 8, line 17) for providing a plurality of filters for use by the filter application unit.

Regarding claim 7, Bala discloses the image processing system of claim 6 wherein the filter repository includes one of:

a blurring filter, a smoothing filter ("blur filter" in col. 7, lines 17,18), a sharpening filter, and an enhancement filter ("enhance detail" in col. 7, line 4).

Regarding claim 8, Bala discloses a method for processing a digital image having a plurality of input pixels comprising:

a) for each input pixel associated with the digital image receiving an input pixel window (Figure 6, num. 104 receives an input pixel window or "n x m block...ΔY" in col. 5, line 43.) corresponding to the current input pixel (Figure 6, num. 104 receives an input pixel window or "n x m block...ΔY" in col. 5, line 43 corresponding to the current input pixel or "center pixel i" in col. 7, line 40.);

a1) generating a filter identifier (Fig. 10, num. 302 generates a filter identifier, "NO", that identifies a filter in fig. 10, num. 304: USE SMALL AREA FILTER or fig. 10, num. 308 generates a filter identifier, "YES", that identifies a filter in fig. 10, num. 310: USE SMALL AREA FILTER) based on one of an edge parameter (Fig. 10, num. 302 generates a filter identifier, "NO", that identifies a filter in fig. 10, num. 304: USE SMALL AREA FILTER or fig. 10, num. 308 generates a filter identifier, "YES", that identifies a filter in fig. 10, num. 310: USE SMALL AREA FILTER where fig. 10, num. 308 is based on one of an edge parameter or "threshold T_3" in col. 8, line 6, and shown in fig. 10, num. 308: "t_3", which corresponds to "strong edges" in col. 7, line 34 or ">1" in col. 7, line 35.) and an activity metric not indicating an edge parameter (Fig. 10, num. 302 generates a filter identifier, "NO", that identifies a filter in fig. 10, num. 304: USE SMALL AREA FILTER based on an activity metric or "range" in col. 8, line 1 where the range corresponds to $t_1<a_s<t_2$ as shown in fig. 10, num. 302 and corresponds to "Very low activity" in col. 7, line 30 or "=1" in col. 7, line 31.) wherein a combination of both the edge parameter ("threshold T_3" in col. 8, line 6, and shown in fig. 10, num. 308: "t_3") and the activity metric ("range" in col. 8, line 1 where the range corresponds to $t_1<a_s<t_2$ as shown in fig. 10, num. 302) is not required (The combination of the activity metric, $t_1<a_s<t_2$ of fig. 10, num. 302, and edge parameter, fig. 10, num. 308: "t_3" are not combined as shown in numerals 302 and 308 of fig. 10.)...

...for the generating of the filter identifier (The combination of the activity metric, $t_1<a_s<t_2$ of fig. 10, num. 302, and edge parameter, fig. 10, num. 308: "t_3" are not combined as shown in numerals 302 and 308 of fig. 10 for the generating of the filter identifier or output, NO, of fig. 10, num. 302 or YES of fig. 10, num. 308. Note that fig. 10, num. 304:USE SMALL AREA FILTER corresponds to "flat areas" in col. 7, line 30 and "small filter footprint" in col. 7, lines 30,31, num. 310:USE SMALL AREA FILTER corresponds to "strong edges" in col. 7, line 34 and "small filter footprint" in col. 7, lines 34,35 and 312:USE LARGE AREA FILTER corresponds to "mild image variations" and "large filter footprint" in col. 7, line 33.); and

a2) applying a filter (Fig. 10,num: 304: USE SMALL AREA FILTER

applies a filter by using a filter.) specified by the filter identifier (Fig. 10,num. 304: USE SMALL AREA FILTER applies a filter by using a filter specified by the filter identifier, YES, of fig. 10,num. 302.) to the input pixel window (Fig. 10,num. 304: USE SMALL AREA FILTER applies a filter by using a filter specified by the filter identifier, YES, of fig. 10,num. 302. to the input pixel window or "n x m block...ΔY" in col. 5, line 43.) to generate an output pixel (Fig. 10,num. 304: USE SMALL AREA FILTER applies a filter by using a filter specified by the filter identifier, YES, of fig. 10,num. 302. to the input pixel window or "n x m block...ΔY" in col. 5, line 43 to generate an output pixel or "filtered version ΔY' " in col. 6, lines 55,56 where ΔY' corresponds to an unfiltered "n x m block [of pixels] ΔY" in col. 5, line 44.)...

...corresponding to the current input pixel (Fig. 10,num. 304: USE SMALL AREA FILTER applies a filter by using a filter specified by the filter identifier, YES, of fig. 10,num. 302. to the input pixel window or "n x m block...ΔY" in col. 5, line 43 to generate an output pixel or "filtered version ΔY' [which includes the above mentioned center pixel i] " in col. 6, lines 55,56 where ΔY' corresponds to an unfiltered "n x m block [of pixels] ΔY" in col. 5, line 44 which corresponds to the current input pixel or "center pixel i" in col. 7, line 40 which is located in the filter footprint or n x m block. Thus, an input center pixel i in signal ΔY of fig. 6 is inputted into fig. 6, num. 104: SPATIAL FILTER to output a filtered center pixel i in the signal ΔY' of fig. 6.).

Regarding claim 9, Bala discloses the method of claim 8 wherein the step of receiving the input pixel window corresponding to the current input pixel includes

the step of:

a) receiving the input pixel window (Figure 6, num. 104 receives an input pixel window or "n x m block...ΔY" in col. 5, line 43.) that includes the current input pixel and pixels adjacent to the current input pixel (Figure 6, num. 104 receives an input pixel window or "n x m block...ΔY" in col. 5, line 43 that includes a current input pixel or "center pixel" in col. 7, line 40 and "neighbor[ing]" in col. 7, lines 41,42 pixels adjacent to the current input pixel.).

Claim 10 is rejected the same as claim 9. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 10.

Regarding claim 11, Bala discloses the method of claim 8 wherein the step of generating the filter identifier based on one of the edge parameter and the activity metric includes the steps of:

a) computing at least one edge parameter (Fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s computes at least one edge parameter, a_s, because a small activity area corresponds to a "SMALL AREA FILTER" as shown in fig. 10, num. 310 or "small filter footprint" in col. 7, lines 34,35 which in turn corresponds to "strong edges" in col. 7, line 34.) based on the input pixel window (Fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s computes at least one edge parameter, a_s, because a small activity area corresponds to a "SMALL AREA FILTER" as shown in fig. 10, num. 310 or "small filter footprint" in col. 7, lines 34,35 which in turn corresponds to "strong edges" in col. 7, line 34 based on the "n x m block...ΔY" in col. 5, line 43 as represented in fig. 6 as ΔY.); and

b) utilizing the edge parameter (The edge parameter, a_s, is utilized in fig. 10, num. 308.) to generate the filter identifier (YES of fig. 10, num. 308.).

Claim 12 is rejected the same as claim 3. Thus, argument similar to that presented above for claim 3 is equally applicable to claim 12.

Claim 13 is rejected the same as claim 11. Thus, argument similar to that presented above for claim 11 is equally applicable to claim 13.

Claim 14 is rejected the same as claim 5. Thus, argument similar to that presented above for claim 5 is equally applicable to claim 14.

Regarding claim 15, Bala discloses a method for processing a digital image having a plurality of input pixels comprising:

a) receiving the digital image (Fig. 6, label: GAMUT MAPPING G1 receives the digital image represented as C_1,C_2 and Y via two input arrows.); and

b) for each input pixel associated with the digital image

b1) generating a level of variation (Fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s is part of a method that generates a level of variation or ACTIVITY a_s.) based on a first window of pixels (Fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s generates a level of variation or ACTIVITY a_s based on a first window of pixels or SMALL AREA of fig. 10, num. 300.) with reference to an input pixel (Fig. 10, num. 300: COMPUTE SMALL AREA ACTIVITY a_s generates a level of variation or ACTIVITY a_s based on a first window of pixels or SMALL AREA of fig. 10, num. 300 with reference to an input pixel or "center pixel" in col. 7, line 40.);

b2) determining (Fig. 10, num. 302 is a determining step.) whether the level of variation (Fig. 10, num. 302 is a determining step that determines whether "a_s" corresponds to the claimed level of variation as shown in step 302.) is in a predetermined relationship with a predetermined level of variation (A "range" in col. 8, line 2 which is shown in fig. 10, num. 302 as "$t_1<a_s<t_2$."");

b3) when the level of variation is in the predetermined relationship (NO branch of fig. 10, num. 302) with the predetermined level of variation (A "range" in col. 8, line 2 which is shown in fig. 10, num. 302 as "$t_1<a_s<t_2$."),

b3a) applying a first filter (Fig. 10,num. 304: USE SMALL AREA FILTER.); and

b4) when the level of variation is not in the predetermined relationship with the predetermined level of variation (YES branch of fig. 10, num. 302),

b4a) generating a measure of an edge parameter (Fig. 10, num. 306: COMPUTE LARGE AREA ACTIVITY a_L generates a measure of an edge parameter because the parameter a_L is used to determine an edge in the next step 308.) based on a second window (Fig. 10, num. 306: ...LARGE AREA...) of pixels with reference to the input pixel,

b4b) selecting an enhancement filter (Fig. 10, num. 308 is a step that selects via a YES branch an enhancement filter of fig. 10, num. 310: USE SMALL AREA FILTER.) based on the measurement of the edge parameter (parameter a_L in step 308), and

b4c) applying the selected enhancement filter (Fig. 10, num. 310: USE SMALL AREA FILTER is applied or used.) to a third window (Fig. 10, num. 310: USE SMALL AREA FILTER is applied or used on a third window or SMALL AREA of fig. 10,num. 310.) to generate an output pixel (Fig. 10, num. 310: USE SMALL AREA FILTER is applied or used on a third window or SMALL AREA of fig. 10,num. 310 to generate an output pixel ΔY'.) corresponding to the current input pixel (ΔY) being processed from the each input pixel associated with the digital image,

c) wherein a combination of both the edge parameter (The edge parameter a_L is used to determine an edge in the next step 308 using a "strong edges" in col. 7, line 34 measurement, t_3.) and the level of variation (a_s of fig. 10,num. 302 corresponds to the level of variation or "flat areas" in col. 7, line 30) is not required (via "simple activity measures" in col. 8, line 12 which corresponds to "a_L" of fig. 10,num. 306 is "sufficient to select the appropriate filters" in col. 8, lines 12,13 as opposed to a_L/ a_s of fig. 10, num. 308 which is not as simple as a_L.) for the selecting of the enhancement filter (Fig. 10, num. 308 is a step that selects via a YES branch an enhancement filter of fig. 10, num. 310: USE SMALL AREA FILTER wherein a combination of both the edge parameter a_L and the level of variation t_1 as shown in the selecting an enhancement filter step of fig. 10, num. 308 is not required.), and

d) wherein the first window, the second window, and the third window are the same (or fixed due to changing "values...rather than the footprint" in col. 7, lines 14,15) window of pixels.

Claim 16 is rejected the same as claim 9. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 16.

Regarding claim 17, Bala discloses the method of claim 15 wherein the first filter is a low pass filter ("blur filter" in col. 7, lines 17,18.) that replaces the current input pixel with a blurred version of the current input pixel.

Claim 19 is rejected the same as claim 3. Thus, argument similar to that presented above for claim 3 is equally applicable to claim 19.

Regarding claim 20, Bala discloses the method of claim 15 wherein the first window (The first window of pixels or SMALL AREA of fig. 10, num. 300.), the second window (Fig. 10, num. 306: ...LARGE AREA...), and the third window (SMALL AREA of fig. 10,num. 310) are the same window of pixels (All of the windows are the same window of pixels because all of the windows process the same pixels at different window sizes.).

Allowable Subject Matter

7. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 18 is allowable for the same reasons of the office action of 7/14/2005 all of which is incorporated herein.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 6-3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DR
Dennis Rosario
Unit 2621

JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER